

## **Pollution Report (POLREP) 13 and Final Time-Critical Removal Action at Quad Avenue Chemical and Biofuels Site**

CERCLIS Site Name/ID #: Quad Avenue Chemical and Biofuels Site / A38S  
6624 – 6630 Quad Avenue  
Baltimore, Maryland 21237

LAT: 39°18'5.61"N  
LONG: -76°32'3.60"W

ATTN: EPA Region 3 RRC  
Melissa Linden, EPA  
Geoffrey Donahue, MDE

DATE: February 3, 2022

This Pollution Report (POLREP) summarizes the Time-Critical Removal Action conducted by EPA between August 2018 and March 2020 at the Quad Avenue Chemical and Biofuels Site (Site). POLREP #12 documented the completion of on-site response actions on March 19, 2020 when EPA's Emergency and Rapid Response Services (ERRS) cleanup contractor completed the last off-site shipment of waste and demobilized. Issues associated with off-spec drums and receipt of final certificates of disposal delayed the contractor's submittal of certain CERCLA Off-Site Reports. All disposal activities have been completed and the required documentation has been received. Final disposal was confirmed in December 2021. ERRS submitted a final invoice in January 2022.

### **I. Summary of Incident**

In May 2018, along with representatives of the State of Maryland and the City of Baltimore, EPA initiated a removal site evaluation at an abandoned industrial facility in Baltimore. The Site is located within a commercial/industrial area in Baltimore, Maryland. The Site is bounded by commercial facilities to the east and west, a tributary to Herring Run to the north, and Quad Avenue to the south. There are residential developments located approximately one-half mile to the north/northwest.

Based on the OSC's discussions with the former owner, now deceased, Haven Corporation (formerly Haven Chemical Corporation), began operations at the Site property in 1979. The owner indicated that operations at that time involved development and manufacturing of epoxy floor coatings and that more recent operations, which ended around 2014, were related to the production of biofuels and involved two companies, Freestate Bio Fuels and Eagle Creek Fuel Services.

The one-acre property consists of two condemned warehouse buildings and a shared loading dock where more than one thousand abandoned drums and other containers of unknown contents were being stored. Drums, totes, tanks and other containers were also scattered throughout the property. Many of the containers were in poor condition and there were signs that some had spilled and/or were leaking their contents. Initial information indicated flammables, corrosives, hazardous substances and oils were present. Given the large amount of chemicals on-site and the potential threat to public health and safety,

the City of Baltimore and the Maryland Department of the Environment (MDE) requested assistance from EPA.

Site investigations indicated drums and other containers contained CERCLA hazardous substances listed in 40 CFR § 302.4. Sampling indicated that the contents of some of the drums and other containers exhibited hazardous characteristics (ignitability and corrosivity) defined under the Resource Conservation and Recovery Act, 42 USC §§ 6901-6992k (RCRA), 40 CFR Part 261. An Action Memorandum selecting response actions at the Site was signed by the Director of EPA Region III Hazardous Site Cleanup Division June 21, 2018 with additional funding for continued response actions approved in Action Memorandum signed December 6, 2018 and July 3, 2019. The selected response actions included, securing the Site against vandalism of drums, tanks, totes and other containers; stabilizing hazardous substances, pollutants or contaminants in leaking containers; addressing spills from leaking containers; characterizing and segregating all hazardous substances, pollutants or contaminants in containers as well as associated contaminated materials that may pose a threat or waste materials and/or debris that may impeded response actions; sampling and preparation of these containers and materials as needed for off-site disposal and conducting off-site disposal. Additional details regarding the selected response actions are included in the June 21, 2018 Action Memorandum.

In August 2018, EPA obtained access to the Site under and administrative warrant to conduct additional site investigations and a limited response action to stabilize and mitigate threats at the Site. From August through November 2018, EPA and its contractors conducted on-site response actions to address leaking containers and spills from those containers; to sample, characterize and segregate hazardous substances in containers and to secure the Site. Disposal of hazardous substances and contaminated materials was not authorized under the warrant. While seeking further access from the property owner and through the courts, EPA maintained security to deter trespassing and limit access to the hazardous substances at the Site. A detailed discussion of activities conducted under the administrative warrant is included in POLREP 7.

In November 2019, access to complete response actions at the Site was provided by the estate of the late property owner. EPA and its contractors mobilized the resources needed to complete on-site response actions. Efforts focused on preparing waste in drums and other containers for off-site disposal, arranging for and conducting off-site disposal. Contractors overpacked compromised drums, transferred waste from containers that were not shippable to competent containers, consolidated wastes, staged containers for disposal, loaded and shipped containers to off-site disposal facilities.

During the week of March 16, 2020, all planned off-site disposal efforts were completed. Liquid, sludge and solid waste shipped to off-site disposal facilities included wastes contained in more than 650 drums and 50 totes; more than 3000 gallons of waste sludges shipped via vacuum truck; more than 12 tons of lab-pack waste in containers 5-gallons and less in size; more than 7 tons of bags of powders and solids on pallets and approximately 35 tons of site debris including more than 750 empty crushed 55-gallon drums. Five compressed gas cylinders were also shipped to an off-site disposal facility. On April 2, 2020, EPA and contractor personnel conducted a geophysical survey to determine if any underground storage tanks (USTs) were present in areas previously inaccessible. The survey did not locate any USTs. No further response activities are planned. All EPA and contractor personnel, equipment and support facilities have demobilized from the Site.

## II. Summary Fact Sheet

CERCLIS Site Name: Quad Avenue Chemical and Biofuels Site

Location: 6624 – 6630 Quad Avenue, Baltimore, Maryland 21237

Site Size: Approximately one acre

Original Funding Approval Date: June 21, 2018

Project Period: August 8, 2018 through March 19, 2020

Project Description: This Removal Action addressed leaking containers and spills from those containers; secured the Site; sampled, characterized and segregated hazardous substances in containers; prepared waste in drums and other containers for off-site disposal; arranged for and conducted off-site disposal. For more details, see the Narrative description below.

Hazardous Substances Present: methyl ethyl ketone, methyl isobutyl ketone, dibutyl phthalate, xylene, isophorone, ethylbenzene, bis 2-ethylhexyl phthalate, tetrachloroethene, chromium, lead

Quantities Removed: See Table in Section III

OSC: Kelley Chase

Primary Cleanup Contractor: Environmental Restoration

Disposal Methods/Locations: Various, See Table in Section III

Project Ceiling: \$2,470,533

Project Costs: \$1,586,233

Comments: On March 19, 2020 Environmental Restoration completed load-out of waste and demobilized from the site. On April 2, 2020, EPA, Weston Solutions and TPI Enviro conducted a geophysical survey in areas that could not be fully evaluated until all waste and equipment were removed. No areas of concern were identified.

## III. Disposition of Wastes

<b>Waste Stream</b>	<b>Quantity</b>	<b>Date Shipped</b>	<b>Manifest #</b>	<b>Approval #</b>	<b>Method/ Location of Disposal</b>
Sulfuric Acid	1 Drum	01/09/2020	021425234JJK	67645	Waste Water Treatment EQ of Detroit, Inc., Detroit, MI
Corrosive Acid Liquids (AL-01)	2 Drums	01/09/2020	021425234JJK	67647	Neutralization/Solidification/Landfill Advanced Disposal – Cumberland County Landfill, Shippensburg, PA
Corrosive Acid Liquids (AL-02)	18 Drums	01/09/2020	021425234JJK	67647	Solidification/Landfill/ Incineration Advanced Disposal – Cumberland County Landfill, Shippensburg, PA ROSS Incineration Services, Grafton, OH
Corrosive Acid Liquids (AL-02)	1 Drum	01/23/2020	021425358JJK	N/A	Solidification/Landfill Advanced Disposal – Cumberland County Landfill, Shippensburg, PA
Corrosive Acid Solids (AS-03)	2 Drums	01/09/2020	021425234JJK	67645	Neutralization/Landfill Advanced Disposal – Cumberland County Landfill, Shippensburg, PA
Corrosive Base Liquids (BL-12)	11 Drums	01/10/2020	021425235JJK	67675	Incineration ROSS Incineration Services, Grafton, OH
Neutral Liquids (NL-04/05)	14 Totes	01/09/2020	021425234JJK	67645	Solidification/Landfill Advanced Disposal – Cumberland County Landfill, Shippensburg, PA
Neutral Liquids (NL-04/05)	3 Totes	01/10/2020	021425234JJK	N/A	Solidification/Landfill Advanced Disposal – Cumberland County Landfill, Shippensburg, PA
Organic Liquids (OL-07/08)	9 Totes	01/22/2020	021425345JJK	N/A	Solidification/Landfill Advanced Disposal – Cumberland County Landfill, Shippensburg, PA
Motor Oil Waste Liquid (MOL-13)	1 Tote	01/22/2020	021425345JJK	67935	Fuel Blending Ross Incineration Services, Grafton, OH Geocycle LLC, Holly Hill, SC

					Keystone Cement Company, Bath, PA
Veg Oil Waste Liquid (VOL- 14/15)	14 Totes	01/10/2020	021425257JJK	67937	Fuel Blending Ross Incineration Services, Grafton, OH Geocycle LLC, Holly Hill, SC
Veg Oil Waste Liquid (VOL- 14/15)	5 Totes	01/22/2020	021425345JJK	67937	Fuel Blending ROSS Incineration Services, Grafton, OH Geocycle LLC, Holly Hill, SC
Flammable Sludges (FLS- 19)	83 Drums	01/23/2020	021425358JJK	67947	Fuel Blending Ross Incineration Services, Grafton, OH Geocycle LLC, Holly Hill, SC Keystone Cement Company, Bath, PA Giant Cement Company, Harleyville, SC
Organic Solids (OS-11)	15 Drums	01/22/2020	021425345JJK	67957	Incineration ROSS Incineration Services, Grafton, OH
Organic Solids (OS-09/10)	68 Drums	01/16/2020	021425307JJK	69755	Incineration ROSS Incineration Services, Grafton, OH
Flammable Sludges (FLS- 19)	12 Drums	02/04/2020	021425494JJK	67947	Incineration ROSS Incineration Services, Grafton, OH
Flammable Solids (FS-21)	15 Drums	02/04/2020	021425494JJK	67944	Incineration ROSS Incineration Services, Grafton, OH
Organic Solids (OS-09/10)	32 Drums	02/04/2020	021425494JJK	67955	Incineration/ROSS Incineration Services, Grafton, OH
Organic Solids (OS-11)	23 Drums	02/04/2020	021425494JJK	67957	Incineration ROSS Incineration Services, Grafton, OH
Organic Solids (OS-11)	6 Drums	02/05/2020	021424001JJK	67957	Incineration ROSS Incineration Services, Grafton, OH
Flammable Liquids Acid (FLA-17) Flammable Liquids (FL-18)	67 Drums	02/05/2020	021424001JJK	67644	Incineration/Fuel Blending ROSS Incineration Services, Grafton, OH Geocycle LLC, Holly Hill, SC Giant Cement Company, Harleyville, SC
Veg Oil Waste Liquid (VOL- 14/15)	1 Tote	02/05/2020	021424001JJK	67937	Fuel Blending Ross Incineration Services, Grafton, OH Geocycle LLC, Holly Hill, SC
Flammable Liquids Acid (FLA-17) Flammable Liquids (FL-18)	52 Drums	02/11/2020	021424063JJK	67644	Incineration/Fuel Blending ROSS Incineration Services, Grafton, OH Geocycle LLC, Holly Hill, SC Giant Cement Company, Harleyville, SC
Flammable Liquids Acid (FLA-16)	7 Drums	02/11/2020	021424063JJK	66941	Incineration/Fuel Blending ROSS Incineration Services, Grafton, OH Geocycle LLC, Holly Hill, SC Keystone Cement Company, Bath, PA Advanced Disposal – Cumberland County Landfill, Shippensburg, PA
Organic Solids (OS-09/10)	19 Drums	02/13/2020	021424097JJK	67955	Incineration ROSS Incineration Services, Grafton, OH
Organic Solids (OS-11)	7 Drums	02/13/2020	021424097JJK	67957	Incineration/Treatment/Disposal ROSS Incineration Services, Grafton, OH Envirte of Pennsylvania, York, PA
Neutral Solids (NS-06)	23 Drums	02/13/2020	021424097JJK	105180	Treatment/Landfill Advanced Disposal – Cumberland County Landfill, Shippensburg, PA
Neutral Liquids (NL-04/05)	2 Drums	02/13/2020	021424097JJK	N/A	Solidification/Landfill Advanced Disposal – Cumberland County Landfill, Shippensburg, PA
Organic Liquids (OL-07/08)	11 Drums	02/13/2020	021424097JJK	N/A	Treatment/Solidification/Landfill/Fuel Blend Advanced Disposal – Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA
Organic Solids (OS-09/10)	12 Drums	2/19/2020	021424153JJK	67955	Incineration ROSS Incineration Services, Grafton, OH
Organic Liquids (OL-07/08)	74 Drums	2/19/2020	021424153JJK	67955	Solidification/Landfill Advanced Disposal – Cumberland County Landfill, Shippensburg, PA
Lab pack materials NON-RCRA/NON-DOT	2700 lbs	2/26/2020	021424391JJK	N/A	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC

					Heritage WTI, East Liverpool, OH
Lab pack materials NON-RCRA/NON-DOT	3300 lbs	3/3/2020	018805129JJJ	N/A	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
Lab pack materials NON-RCRA/NON-DOT	2000 lbs	3/6/2020	021424497JJJ	N/A	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
Lab pack materials (Flammable Liquids)	800 lbs	3/6/2020	021424497JJJ	107501	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
Lab pack materials NON-RCRA/NON-DOT	3300 lbs	3/9/2020	021422511JJJ	N/A	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
(2) Oxygen comp gas cylinders	20 lbs	3/9/2020	021422511JJJ	109115, 109116	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
(3) Acetylene dissolved cylinder	30 lbs	3/9/2020	021442511JJJ	109117, 109118	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
RCRA empty, used PPE non-haz debris	30 CY	2/27/2020	3Q470001	N/A	Advanced Disposal - Cumberland County Landfill, Newburgh, PA
RCRA empty, used PPE, non- haz debris	30 CY	3/2/2020	3Q470002	N/A	Advanced Disposal - Cumberland County Landfill, Newburgh, PA
RCRA empty, used PPE, non- haz debris	30 CY	3/3/2020	3Q470003	N/A	Advanced Disposal - Cumberland County Landfill, Newburgh, PA
RCRA empty, used PPE, non- haz debris	30 CY	3/5/2020	3Q470004	N/A	Advanced Disposal - Cumberland County Landfill, Newburgh, PA
RCRA empty, used PPE, non- haz debris	30 CY	3/6/2020	3Q470005	N/A	Advanced Disposal - Cumberland County Landfill, Newburgh, PA
RCRA empty, used PPE, non- haz debris	30 CY	3/10/2020	3Q470006	N/A	Advanced Disposal - Cumberland County Landfill, Newburgh, PA
Organic Liquids (OL-07/08)	53 Drums	3/7/2020	021422504JJJ	N/A	Solidification/Landfill Advanced Disposal - Cumberland County Landfill, Shippensburg, PA
Neutral Liquids (NL-04/05)	8 Drums	3/7/2020	021422504JJJ	N/A	Solidification/Landfill Advanced Disposal - Cumberland County Landfill, Shippensburg, PA
Organic Solids (OS-11)	1 Drum	3/7/2020	021422504JJJ	67957	Incineration ROSS Incineration Services, Grafton, OH
Flammable Liquids Acid (FLA-17) Flammable Liquids (FL-18)	5 Drums	3/7/2020	021422504JJJ	67644	Incineration ROSS Incineration Services, Grafton, OH

Flammable Liquids (FLST- 20)	6 Drums	3/7/2020	021422504JJJ	67953	Fuel Blending Keystone Cement Company, Bath, PA
Veg Oil Sludge Waste	2475 Gal	3/10/2020	ERC0001887	N/A	Treatment/Solidification/Landfill Environmental Recovery Corp., Lancaster, PA
Veg Oil Sludge Waste	700 Gal	3/11/2020	ERC0001889	N/A	Treatment/Solidification/Landfill Environmental Recovery Corp., Lancaster, PA
Lab-Pack Materials (Non- RCRA/Non-DOT)	3300 lbs	3/11/2020	021422548JJJ	N/A	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
Lab-Pack Materials (waste corrosive, liquid, waste flammable liquid)	50 lbs	3/11/2020	021422548JJJ	Various	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
Lab-Pack Materials (Non- RCRA/Non-DOT)	1400 lbs	3/13/2020	021422616JJJ	N/A	Landfill Advanced Disposal - Cumberland County Landfill, Shippensburg, PA
Lab-Pack Materials (waste corrosive, liquid, waste flammable liquid)	750 lbs	3/13/2020	021422616JJJ	107508,107501, 107506	Incineration/ Fuel Blending Ross Incineration Services, Grafton, OH Geocycle, LLC, Holly Hill, SC
Lab-Pack Materials (waste aerosols, flammable)	85 lbs	3/13/2020	021422616JJJ	107499	Fuel Blending/Destruction Environmental Enterprises Inc., Cincinnati, OH
Lab-pack Materials (solid, corrosive)	350 lbs	3/13/2020	021422616JJJ		Incineration Ross Incineration Services
Lab-Pack Materials (waste toxic, liquids)	75 lbs	3/13/2020	021422616JJJ	VRA6	Incineration Ross Incineration Services
Veg Oil Waste Liquid (VOL-14/15)	2 Totes 7 Drums	3/16/2020	021422637JJJ	67937	Incineration/Fuel Blending Ross Incineration Services Geocycle, LLC
Organic Liquids (OL-07/08)	2 Totes 4 Drums	3/16/2020	021422637JJJ	N/A	Solidification/Landfill Advanced Disposal-Cumberland County Landfill
Motor Oil Waste Liquid (MOL- 13)	1 Drum 1 Tote	3/16/2020	021422637JJJ	67935	Incineration/Fuel Blending Ross Incineration Services Geocycle, LLC Keystone Cement Company, Bath, PA
Neutral Liquids (NL-04/05)	11 Drums	3/16/2020	021422637JJJ	67669	Solidification/Landfill Advanced Disposal-Cumberland County Landfill
Organic Solids (OS-09/10)	1 Drum	3/16/2020	021422637JJJ	67955	Incineration Ross Incineration Services
Corrosive Acid Solid (AS-03)	1 Drum	3/16/2020	021422637JJJ	67664	Neutralization/Landfill Advanced Disposal - Cumberland County Landfill, Shippensburg, PA
Organic Solid (OS-11)	6 Drums	3/16/2020	021422637JJJ	67957	Incineration Ross Incineration Services

Lab-Pack Materials (NON- RCRA/NON-DOT)	7200 Lbs	3/18/2020	021422669JJJ	N/A	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
Non-Haz Powders/Solids	14,400 Lbs	3/18/2020	021422669JJJ	N/A	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
Lab-Pack Materials (waste flammable liquids)	800 lbs	3/18/2020	021422669JJJ	107501	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
Lab-Pack Materials (waste amines, liquid, corrosive)	800 Lbs	3/18/2020	021422669JJJ	107508	Solidification/Incineration/Landfill/Re-Use Advanced Disposal - Cumberland County Landfill, Shippensburg, PA Keystone Cement Company, Bath, PA SET Environmental, Houston, TX Geocycle, LLC, Holly Hill, SC Heritage WTI, East Liverpool, OH
RCRA empty, used PPE, non- haz debris	30 CY	3/19/2020	3Q470007	N/A	Advanced Disposal - Cumberland County Landfill, Newburgh, PA
discarded truck tires	129 tires	various	N/A	N/A	Recycling Emanuel Tire, LLC

#### IV. Outcome Measures

CERCLIS Site Name: Quad Avenue Chemical and Biofuels Site

Location: 6624 – 6630 Quad Avenue, Baltimore, MD 21237

CERCLIS Site ID: A38S

Lat: 39°18'5.61"N

Long: -76°32'3.60"W

Primary contaminant: See Section II

Est. Volume of Contaminant Removed: See Section III

Contaminated Medium: drums, totes, tanks, cylinders and other containers

Number of People for Whom Exposure is Avoided: est. 100

Extramural Funding: \$1,586,233, See Section V

#### V. Cost Summary

- On June 21, 2018, an Action Memorandum for the Site was signed with a Total Removal Action Project Ceiling of \$901,000.
- On December 6, 2018, an Action Memorandum was signed approving additional funding for the Site; new Total Removal Action Project Ceiling was \$1,995,533.
- On July 3, 2019, an Action Memorandum was signed approving additional funding and an exemption from the 12-month and \$2 million statutory limits; the new Total Removal Action Project Ceiling is \$2,470,533.

- EPA issued a request to its Superfund Technical Assessment and Response Team (START) contractor to provide technical assistance.
- EPA issued a Task Order to its ERRS cleanup contractor to conduct the response actions identified in the Action Memo.

	<b>Budgeted</b>	<b>Total To Date</b>	<b>Remaining</b>
ERRS Cleanup Contractor	\$2,196,000	\$1,438,326	\$757,674
START (Removal)	\$189,094	\$147,907	\$41,187
Unallocated	\$85,439	0	\$85,439
<b>Total Site Costs</b>	<b>\$2,470,533</b>	<b>\$1,586,233</b>	<b>\$884,300</b>

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

## **VI. Roster of Agencies**

EPA  
 EPA ERRS Contractor (Environmental Restoration)  
 EPA START Contractor (Weston Solutions)  
 Maryland Department of the Environment (MDE)  
 City of Baltimore

The response action was conducted by the EPA OSC, ERRS and START contractors. The OSC coordinated with state and local response partners throughout the action.

## **VII. Summary of Removal Site Evaluation**

A detailed discussion of activities conducted by local authorities and activities conducted as part of the Removal Site Evaluation by the OSC is included in POLREPs 1 through 7 and in the June 21, 2018 and December 6, 2018 Action Memorandum.

### Summary of Activities conducted by Local Authorities

On May 2, 2018, investigators from the Baltimore City Department of Housing and Community Development, Special Investigations Unit (Baltimore City DHCD-SIU) conducted a search at the Site pursuant to a warrant due to concerns that hazardous chemicals were being stored on the property. In attendance were members of the Baltimore City Fire Department's Hazardous Materials Response Team (BCFD Hazmat) and Fire Prevention Section, the Mayor's Office of Emergency Management and a Baltimore Housing Building Inspector. The City of Baltimore inspectors found the property to be abandoned and open to casual entry. BCFD Hazmat did not find any immediate concerns, but noted that



the two warehouses were full of hazardous chemicals that posed a serious threat to the health, life and safety of anyone in the immediate area, as many were highly flammable and combustible. BCFD reported that hundreds of barrels (also known as drums) were found on the shared loading dock. BCFD Hazmat found the majority of these drums to be leaking a type of vegetable grease. Additional containers of unknown contents were found in a trailer in the back of the property. BCFD reported that throughout the property, there were at least one thousand drums, contents unknown. Based on the inspection, the City of Baltimore determined the property to be an unsafe structure and posted condemnation notices. Due to the large quantity of chemicals on-site and the potential for serious threat to health, life and safety of businesses and residences located in the surrounding area, the City of Baltimore referred the matter to MDE for further action.

### Summary of Removal Site Evaluation (RSE) by OSC

Based upon available information and the request of City of Baltimore and MDE, the OSC initiated a RSE in accordance with Section 300.410 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). On May 24, 2018, the OSC met the owner at the property. The OSC was accompanied by an investigator from the Baltimore City DHCD-SIU, representatives from MDE and EPA's START contractors. The OSC observed overturned containers and staining on the ground as well as other large and small containers and drums spread across the property and stacked in the loading dock areas. Some of the containers were open and appeared to contain a black oil-like liquid. Portions of the loading dock were covered with a greasy substance which appeared to have leaked from the drums stacked nearby.

With the owner's permission and based on the real-time monitoring by EPA's contractor, the group entered the two buildings. Inside the buildings the OSC observed numerous drums and various other containers many of which were in a deteriorated condition. Steel 55-gallon drums were stacked two to three high. Some of the drums were labeled, many were not. National Fire Protection Association (NFPA) 704 labeling on some drums indicated hazards. Both buildings were observed to be in very poor condition. Based on observations during the site visit on May 24, 2018 along with information previously obtained from the city and state, the OSC recommended a time-critical removal action be taken at the Site. The OSC prepared documents for EPA management's review and approval to request funding needed to take a response to mitigate threats posed by the release or threat of release of hazardous substances, pollutants or contaminants at the Site. The OSC continued efforts to obtain access to the Site to conduct activities. On June 21, 2018, an Action Memorandum approving funding and selecting response actions for the Site was signed by the Director of the EPA Region III Hazardous Site Cleanup Division.

### **VIII. Narrative Summary of Removal Action (From Earlier POLREPS)**

POLREP #2: Activities conducted from August 8, 2018 through August 23, 2018:

- EPA and its contractors mobilized equipment, personnel and support facilities to the Site.
- Site buildings were opened; START conducted air monitoring throughout the property.
- ERRS improved access, prepared staging areas and stabilized drums and other containers.
- Contractors documented conditions and prepared a site-specific health and safety plan.

POLREP #3: Activities conducted from August 24, 2018 through September 12, 2018:

- ERRS continued work to improve site access, site controls and define work zones.
- ERRS took delivery of additional supplies and equipment.
- ERRS identified and staged approximately 400 empty drums.
- ERRS prepared the existing loading dock and staged drums to facilitate sampling.
- ERRS bagged amorphous silicon dioxide and removed dust from warehouse surfaces.
- ERRS sampled about 300 drums and 14 totes and hazcatted about 100 of the samples.
- START prepared an Air Monitoring Plan and conducted daily air monitoring.
- START continued to document site conditions and progress of response actions.

POLREP #4: Activities conducted from September 13, 2018 through September 27, 2018:

- ERRS continued to improve site controls and define work zones and removed a tree that fell in the loading dock area as the result of winds associated with Hurricane Florence.
- ERRS obtained equipment and materials needed for bulking liquids. Based on the HAZCAT results, approximately 175 drums containing vegetable oil liquid (VOL) and approximately 70 drums of unknown neutral liquids (NL) were identified for bulking.
- ERRS prepared a site-specific drum bulking SOP. Based on HAZCAT results, ERRS bulked VOL from 55-gallon drums to (13) 275-gallon totes. ERRS drained VOL drum sludge bottoms into two large vessels each having capacities of an estimated 1700 gallons. Emptied drums were staged for future disposal.
- EPA and ERRS contacted a VOL recycler facility to evaluate potential recycling options.
- ERRS sampled and hazcatted 33 drums located inside the West Warehouse.
- START prepared and submitted an Air Sampling Plan and associated analytical request.
- START conducted daily air monitoring, documented site conditions and progress.

POLREP #5: Activities conducted from September 28, 2018 through October 19, 2018:

- ERRS continued to maintain site controls and work zones.
- ERRS continued bulking certain waste streams including VOLs, NLs and organic liquids (OL) from 55-gallon drums into totes in accordance with the site drum bulking SOP.
- ERRS removed approximately 300 drums from the West Warehouse and staged them on the loading dock for sampling; and unstacked and staged the remaining drums (approximately 350) inside the West Warehouse for sampling.
- ERRS completed sampling of the estimated 650 drums and other containers greater than 5 gallons that originated from the West Warehouse.
- ERRS hazcatted all samples collected. To date, approximately 1100 samples (collected from drums, totes, tanks and other containers) have been hazcatted.
- ERRS segregated and restaged drums in West Warehouse based on HAZCAT results.
- The potential VOL recycling facility indicated that, based on their evaluation of the VOL samples, they would not be able to take the VOL.
- START conducted air sampling in accordance with the Air Sampling Plan. Samples were sent off-site for laboratory analysis.
- START conducted daily air monitoring and documented site conditions and progress.

POLREP #6: Activities conducted from October 20, 2018 through November 2, 2021:

- ERRS continued to maintain site controls and work zones.
- ERRS completed bulking certain waste streams including VOLs, NL, OL and motor oil liquids (MOL) from 55-gallon drums into totes per the site drum bulking SOP.
- ERRS continued to separate and re-stage drums according to hazard class/waste stream.
- ERRS overpacked badly degraded drums and those containing strong acids and bases.
- START conducted daily air monitoring, documented site conditions and progress.

POLREP #7: Activities conducted from November 3, 2018 through November 21, 2018:

- ERRS continued to maintain site controls and work zones, as needed.
- ERRS completed staging of small containers for future lab pack effort.
- ERRS completed staging of drums according to hazard class/waste stream and continued to overpack badly degraded drums and those containing strong acids and bases.
- ERRS sampled the 5 large tanks (each approximately 1000-gallons in size) located outside adjacent to the back wall of East Warehouse. Air monitoring indicated very high levels of VOCs (>1600 ppm) and elevated LEL (62%). Tanks estimated to contain a total of at least 500 gallons of solvents; hazcat results indicate the contents are flammable.
- ERRS and EPA determined waste streams for disposal sampling and number of samples, volume and analyses needed for each waste stream. ERRS prepared composite samples for each waste stream, packaged and shipped the samples to the laboratory.
- The OSC and ERRS conducted a site walk with the BCFD to review current conditions and staging of drums, totes and other containers.
- ERRS secured each building by locking bay doors, boarding the front doors and locking the three gates. ERRS demobilized personnel and equipment.
- START conducted daily air monitoring, documented site conditions and progress.

POLREP #8: Activities conducted from November 22, 2018 through March 7, 2019:

- ERRS continued to maintain site security
- ERRS provided the analytical laboratory results for the disposal sampling to the OSC
- ERRS provided estimated quantities of waste streams (based on analytical) for disposal
- ERRS prepared bid packages related to future transportation and disposal activities
- START conducted site documentation activities

POLREP #9: Activities conducted between December 10, 2019 and January 24, 2020:

12/10/19 - 12/13/19: The OSC and ERRS Response Manager (RM) conducted site planning activities, including conducting site walks with potential transportation and disposal subcontractors. The OSC conducted periodic air monitoring. ERRS mobilized support facilities and equipment and continued to maintain site security when not on-site.

12/16/20 - 12/20/19: ERRS mobilized additional personnel and supplies to the Site. ERRS prepared drums and totes for transportation to off-site disposal facilities, conducted site maintenance and

maintained site security when not on-site. START conducted air monitoring and site documentation activities, as needed. Site was secured for the holiday demobilization.

01/06/20 - 01/10/20: ERRS and START personnel mobilized to the Site. ERRS continued to prepare waste in drums and totes for transportation to off-site disposal facilities. ERRS overpacked compromised drums, transferred liquid waste from containers deemed not shippable to competent containers, conducted site maintenance and maintained site security when not on-site. START conducted air monitoring and site documentation activities. Two truckloads of waste including solid and liquid corrosives, neutral liquids and flammable liquids, discussed below, were shipped to ACV Enviro in Lewisberry, PA for disposal.

1/9/20, ACV Enviro was on site to pick up drums and totes for disposal. The drums and totes shipped are as follows:

- (2) 95-gallon poly overpacks from sample group AL-01
- (6) 95-gallon poly overpacks, (1) 30-gallon poly overpack, (1) 55-gallon steel overpack, and (10) 85-gallon steel overpacks from sample group AL-02
- (1) 30-gallon poly overpack and (1) Steel 85-gallon overpack from sample group AS-03
- (1) 30-gallon poly overpack of Sulfuric Acid
- (14) 275-gallon totes from sample group NL-04/NL-05

1/10/20, ACV Enviro was on site to pick up drums and totes for disposal. The drums and totes shipped are as follows:

- (7) 95-gallon poly overpacks, (2) 55-gallon drums, and (2) 55-gallon poly overpacks from sample group BL-12
- (3) 275-gallon totes from sample group NL-04/NL-05
- (13) 275-gallon totes, and (1) 350-gallon tote from sample group VOL-14/VOL-15

1/13/20 - 1/17/2020

- ERRS continued to prepare and overpack compromised drums, as needed and transfer liquids from damaged totes into new totes for disposal.
- On 1/14/20, a contractor for the estate of the late property owner was on site to remove the sailboat located in the west warehouse and the forklift.
- On 1/16/20, (68) 85-gallon steel overpacked drums from group OS-09/10 were taken off site for disposal by ACV Enviro.
- START conducted daily air monitoring.

1/20/20 - 1/24/20:

- ERRS continued to overpack/stage drums for disposal and conducted site maintenance.
- On 1/22/20, (15) 85-gallon steel overpacked drums from sample group OS-11, (5) 275-gallon totes from sample group VOL-14/VOL-15, (9) 275-gallon totes from samples group OL-07/OL-08, and (1) 275-gallon tote from sample group MOL-13 were taken off site for disposal by ACV Enviro.
- On 1/23/20, (1) 85-gallon steel overpacked drum from sample group AL-02, (10) 85-gallon steel overpacked drums from sample group FLS-19, and (73) 55-gallon steel drums from sample group FLS-19 were taken off site for disposal by ACV Enviro.

- START conducted daily air monitoring. On 2/21, elevated VOC levels were detected in the West Warehouse; START found the levels were associated with a flammable liquid waste drum that had been recently moved and the lid was not in place. The drum was covered; monitoring confirmed readings below levels of concern; drum to be overpacked.
- On 1/14/20, ERRS received and staged a truckload of 85-gallon steel overpack drums.

POLREP #10: Activities conducted from January 25, 2020 through February 14, 2020:

ERRS continued to prepare waste in drums and totes for transportation to off-site disposal facilities, and maintained site security during non-work hours. START conducted site documentation activities and air monitoring.

Four truckloads of waste including flammable waste (liquids, sludges and solids), as discussed below, were shipped to ACV Enviro in Lewisberry, PA for disposal.

On 2/4/20, ACV Enviro was on site to pick up drums for disposal, waste shipped as follows:

- (12) 85-gallon steel overpack drums from sample group FLS-19
- (15) 85-gallon steel overpack drums from sample group FS-21
- (2) fiber drums from OS-09/10
- (30) 85-gallon steel overpack drums from sample group OS-09/10
- (17) fiber drums from sample group OS-11
- (6) 85-gallon steel overpack drums from sample group OS-11

On 2/5/20, ACV Enviro was on site to pick up drums and one tote for disposal, waste shipped as follows:

- (6) 85-gallon steel overpack drums from sample group OS-11
- (40) 85-gallon steel overpack drums and (1) poly drum from sample group FLA-17
- (25) 85-gallon steel overpack drums and (1) poly drum from sample group FL-18
- (1) 275-gallon tote from sample group VOL-14/VOL-15

On 2/11/20, ACV Enviro was on site to pick up drums and totes for disposal. The drums and totes shipped are as follows:

- (44) 85-gallon steel overpacks and (8) 95-gallon poly overpacks from sample group FL-18
- (3) 95-gallon poly overpacks, (1) 30-gallon poly overpack, (2) 85-gallon steel overpacks, and (1) 55-gallon steel drum from sample group FLA-16

On 2/13/20, ACV Enviro was on site to pick up drums and totes for disposal. The drums and totes shipped are as follows:

- (19) 85-gallon steel overpacks and (4) 55-gallon steel drums from sample group NS-06
- (7) 85-gallon steel overpacks from sample group OS-11
- (18) 85-gallon steel overpacks and (1) 55-gallon steel drum from sample group OS-09/10
- (2) 30-gallon poly drums from sample group NL-04/05
- (1) 30-gallon poly drum, (9) 55-gallon steel drums, and (1) 85-gallon poly drum from sample group OL-07/08

POLREP #11: Activities conducted from February 14, 2020 through March 10, 2020:

START continued site documentation efforts and daily air monitoring. On 2/27/20, START hazcatted waste in two containers of unknown contents, and waste in a tank containing vegetable oil sludges.

ERRS continued to prepare waste for transportation to off-site disposal facilities, continued site maintenance and maintained site security during non-work hours. ERRS took delivery of 30 cubic yard liner roll-offs and crushed and loaded RCRA empty steel drums, used personnel protective equipment (PPE) and other non-hazardous site debris.

On 2/19/20, ACV Enviro (subcontractor to ERRS) was on-site to pick up one truckload of drums; drums shipped to ACV Enviro in Lewisberry, PA for disposal are as follows:

- (9) 85-gallon steel overpacks and (3) 95-gallon poly overpacks from sample group OS-09/10
- (70) 55-gallon drums and (4) 110-gallon steel overpacks from sample group OL-07/08

On 3/7/20, ACV Enviro was on-site to pick up one truckload of drums; drums shipped to ACV Enviro in Lewisberry, PA for disposal are as follows:

- (45) 85-gallon steel overpacks, (2) 95-gallon poly overpacks and (6) 55-gallon steel drums from sample group OL-07/08
- (4) 85-gallon steel overpacks and (4) 55-gallon steel drums from sample group NL-04/05
- (1) 30-gallon poly container of organic solid waste from sample group OS-11
- (5) 55-gallon steel drums of flammable liquid waste from sample group FLA-17/FL-18
- (6) 55-gallon steel drums of flammable liquid waste from sample group FLST-20

Beginning on 2/26/20, ACV Enviro was on-site to conduct lab pack operations. ACV Enviro personnel segregated laboratory waste chemicals in small containers (5-gallons and less) located in the east warehouse and in the trailer located on the back loading dock between the two buildings. The chemicals were lab packed by ACV Enviro and transported off-site to their Lewisberry, PA facility for proper disposal as follows:

- On 2/26/20, (6) 3-cubic feet boxes/estimated 2700 pounds non-hazardous chemical waste
- On 3/3/20, (6) 3-cubic feet boxes/estimated 3300 pounds non-hazardous chemical waste
- On 3/6/20, (4) 3-cubic feet boxes/estimated 2000 pounds non-hazardous chemical waste and (2) cubic feet boxes/800 pounds flammable liquid waste
- On 3/9/20, (5) compressed gas cylinders (assumed to contain oxygen and acetylene) at an estimated total weight of 50 pounds and (6) 3-cubic feet boxes/estimated 3300 pounds of non-hazardous chemical waste

On 2/26/20, ERRS pumped the flammable liquid contents of five solvent tanks to 55-gallon drums; number of drums for each tank as follows:

- Solvent tank #1- 3 drums
- Solvent tank #2- 2 drums
- Solvent tank #3- 2 drums
- Solvent tank #4- 2 drums
- Solvent tank #5- 2 drums

On 2/24/20, a 30-cubic yard lined roll-off was delivered to the Site. ERRS loaded the roll-off with non-hazardous waste including crushed RCRA empty drums and other containers, used PPE and other non-hazardous solid waste site debris for off-site disposal. As full roll-offs were shipped off-site empty roll-offs were delivered. Full 30 cubic yard roll-offs were shipped for disposal to Advanced Disposal-Cumberland County Landfill in Newburgh, PA on the following dates: 2/27/20, 3/2/20, 3/3/20, 3/5/20, 3/6/20 and 3/10/20.

On 3/10/20, Environmental Recovery Corporation (subcontractor to ERRS) was on-site to conduct vacuum truck operations. The contractors vacuumed approximately 2475 gallons of non-RCRA/not DOT regulated vegetable oil sludges out of two large site containers and transported off-site to Environmental Recovery Corporation's facility in Lancaster, PA. The sludges will be solidified at the facility and transported to landfill for proper disposal.

POLREP #12: Activities conducted from March 11, 2020 through April 3, 2020:

START continued site documentation efforts and air monitoring of on-site activities.

ERRS continued to prepare waste for transportation to off-site disposal facilities, continued site maintenance and maintained site security during non-work hours. A summary of waste transported to off-site disposal facilities during this reporting period is discussed below.

Through 3/11/2020, Environmental Recovery Corporation (ERC), subcontractor to ERRS, was on-site to conduct vacuum truck operations. Contractors removed approximately 2475 gallons on 3/10 and 700 gallons on 3/11 of vegetable oil sludges from two large site containers. The waste was transported to ERC's facility in Lancaster, PA for proper disposal.

On 3/11/20 and 3/13/20, ACV Enviro was on-site to continue lab-pack operations. ACV Enviro personnel segregated and packed laboratory waste chemicals found in small containers (5-gallons and less). Waste was transported off-site to ACV Enviro's Lewisberry, PA facility for proper disposal as follows:

- On 3/11/20, (6) 3-cubic feet boxes/estimated 3300 pounds non-hazardous chemical waste and (4) fiber drums/estimated total 50 pounds corrosive and flammable liquid wastes
- On 3/13/20, (3) 3-cubic feet boxes/estimated 1400 pounds non-hazardous chemical waste; (1) 3-cubic-foot box/estimated 350 pounds corrosive liquid waste amines; (1) steel drum/estimated 85 pounds of waste aerosols; (1) fiber drum/ estimated 50 pounds of corrosive liquid waste; (1) steel drum/estimated 75 pounds of toxic waste; and (1) fiber drum/estimated 350 pounds of corrosive sodium hydroxide solid waste.

On 3/16/20, ACV Enviro was on-site to pick up one truckload of waste in drums and totes; waste was shipped to ACV Enviro in Lewisberry, PA for disposal as follows:

- (4) 85-gallon steel overpacks and (2) 275-gallon totes of organic liquid/sludge waste from sample group OL-07/08
- (9) 85-gallon steel overpacks and (2) poly drums of neutral liquid/sludge waste from sample group NL-04/05
- (6) fiber/poly containers of organic solid waste from sample group OS-11
- (1) 55-gallon steel drum of organic solid waste from sample group OS-09/10
- (1) 55-gallon steel drum and (1) 275-gallon tote of liquid waste from sample group MOL-13

- (1) 55-gallon steel drum of corrosive solid waste from sample group AS-03
- (7) 55-gallon steel drums and (2) 275-gallon totes of waste vegetable oil liquids/sludges from sample group VOL 14/15

On 3/18/20, ACV Enviro was on-site to pick up one truckload of lab-pack waste and pallets of powders and solids previously packaged and staged for off-site transportation and disposal. Waste was shipped to ACV Enviro in Lewisberry, PA for disposal as follows:

- (9) 3-cubic feet boxes and tote containers/estimated total of 7200 pounds non-hazardous chemical waste
- (1) 3-cubic foot box/estimated 800 pounds flammable liquid wastes
- (1) 3-cubic foot box/estimated 800 pounds corrosive liquid waste amines
- (16) pallets /estimated total of 14,400 pounds of non-hazardous chemical powders/solid wastes

On 3/19/20, the last 30-cubic yard roll-off of empty containers, used PPE and other non-hazardous solid waste site debris was shipped for off-site disposal to Advanced Disposal-Cumberland County Landfill in Newburgh, PA on 3/19/20. With the removal of the roll-off container all planned off-site disposal efforts were completed. All EPA and contractor personnel, equipment and support facilities demobilized from the Site by the end of the day.

Since 1/9/2020, liquid, sludge and solid waste shipped to off-site disposal facilities included waste contained in more than 650 drums and 50 totes; more than 3000 gallons of waste sludges shipped via vacuum truck; more than 12 tons of lab-pack waste; more than 7 tons of waste powders and solids and approximately 35 tons of site debris, including more than 750 empty crushed 55-gallon steel drums. Five compressed gas cylinders were also shipped to an off-site disposal facility.

On 4/2/20, TPI Enviro (subcontractor to START) was on-site to conduct a geophysical survey to determine the presence or absence of any underground storage tanks (USTs). TPI Enviro first completed a scan with the Geonics EM61 and Fisher TW-6, which is an electro-magnetic unit. Once the scan was completed TPI analyzed the data. Upon analyzing the data, TPI targeted anomalies with the GSSI SIR 4000 w/ 350 MHz hyperstacking digital antenna, a ground penetrating radar unit, to determine if the anomalies were of concern. It was concluded that the anomalies were most likely due to interference with metal objects, and TPI does not suspect UST. Although TPI does not suspect any UST, they noted polyethylene and fiberglass tanks would not be detected during the survey.

ERRS worked off-site to finalize costs associated with the response activities.

## **IX. Factors Affecting Future Site Use**

No additional response activities by EPA are anticipated. The OSC will continue to coordinate with state and local agencies and entities, as needed.